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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,470	05/31/2001	Michael David Connor	SVL920010021US1	1591

7590 05/04/2004  
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EXAMINER

TANG, KUO LIANG J

ART UNIT	PAPER NUMBER
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2122

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DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/871,470

Applicant(s)

CONNOR ET AL.

Examiner

Kuo-Liang J Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-39 are pending and have been examined. The priority date for this application is 05/31/2001.

#### ***Specification***

2. The disclosure is objected to because of the following informalities:

On page 7, lines 4-5, "Tables 1 through 5, below show" should be Table 1 shows".

Because there is only one Table exists.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-10, 19-24 and 31-36 rejected under 35 U.S.C. 112, second paragraph.

The general form of the claim which states "... constructs are selected from the group including: A, B, C, and D". The Claim is reject because it is unclear. For rejection purpose, the Examiner interprets it as "... constructs are selected from the group: A", or "... constructs are selected from the group: A and B", or "... constructs are selected from the group: A, B and C", or "... constructs are selected from the group: A, B, C, and D".

For example, Claim 5 is rejected because it is not clear. In the claim it says "... constructs are selected from the group including: Terminal I/O constructs, External Flow Transfer constructs, Data I/O constructs, and Computational constructs.". For rejection purpose, the Examiner interprets it as " ... constructs are selected from the group: Data I/O constructs". Claims 6-10 are also rejected based on the dependency on Claim 5.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Iida et al., US Patent No. 5,950,213(hereinafter Iida).

As Per Claim 1, Iida teaches that An input sheet system for reading an input sheet on which an instruction from a user is described, acquiring the instruction from the user on the basis of the read result, and performing information processing according to the instruction. (E.g. see Abstract and associated text). In that Iida discloses the method that covering the steps of:

"identifying at least some predetermined characteristics (E.g. see FIG. 11 Filing frames (Filing A, Filing B, Filing C) and Printer frames (Printer  $\alpha$ , Printer  $\beta$ , Printer  $\gamma$ ) and associated text, e.g. col. 9:22-36) in at least some of the software components in the collection (E.g. see col. 9:23-25, component library);"

“based on the identified predetermined characteristics, listing (E.g. see FIG. 7 creating a processing list S41 and associated text) at least some of the software components in a ranked order (E.g. see col. 9:32-36, distance from the root) representative of the ease (E.g. see col. 9:32, Filling A is easier found) or difficulty of restructuring the components.”

As Per claim 2, the rejection of claim 1 is incorporated and further Iida teaches:

“the predetermined characteristics include programming constructs.” (E.g. see col. 2:5-8, C-language and col. 9:23-25, software component).

As Per claim 3, the rejection of claim 2 is incorporated and further Iida teaches

“the software components are restructured for use in a wide area network.” (E.g. see FIG. 11 Printer  $\alpha$ , Printer  $\beta$ , Printer  $\gamma$  and associated text).

As Per claim 4, the rejection of claim 2 is incorporated and further Iida teaches

“at least some of the programming constructs are assigned respective weights (E.g. see col. 9:33-36, priority) representative of a relative ease (E.g. see col. 9:32, Filling A is easier found) or difficulty of restructuring, the list being ordered based at least partially on the weights of identified programming constructs.” (E.g. see FIG. 11 and associated text e.g. col. 9”19-36).

As Per claim 5, the rejection of claim 4 is incorporated and further Iida teaches

“wherein the programming constructs are selected from the group including: ... Data I/O constructs (E.g. See FIG. 11 and associated text e.g. col. 9:37-61), ...”.

As Per claim 8, the rejection of claim 5 is incorporated and further Iida teaches  
“wherein the Terminal I/O constructs are selected from the group including: ...  
DISPLAY (E.g. see col. 11:13-15), ...”

As Per claim 9, the rejection of claim 5 is incorporated and further Iida teaches  
“wherein the External Control Flow Transfer constructs are selected from the group  
including: ... PERFORM(E.g. FIG. 6, perform the numeral recognition processing for the area  
(S116) and associated text), ...”

As Per claim 10, the rejection of claim 5 is incorporated and further Iida teaches  
“wherein the Data I/O constructs are selected from the group including: ... OPEN (E.g.  
see col. 3:47, 57) , READ (E.g. see col. 5:14-15 and 6:14-17) ...”

As Per claim 11, the rejection of claim 1 is incorporated and further Iida teaches  
“wherein the predetermined characteristics are selected from the group including:  
constructs that include transactions with an associated terminal identification (E.g. see FIG. 11  
Printer  $\alpha$ , Printer  $\beta$ , Printer  $\gamma$  and associated text), constructs that include any screen input or  
output, routines that use variables that are not defined within the scope of a related compilation  
unit (E.g. see FIG.1 screen 30, copy-number inputting frame 112 and associated text), ...”.

As Per claim 12, the rejection of claim 1 is incorporated and further Iida teaches

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“wherein the predetermined characteristics include at least one inbound call or invocation.” (E.g. see FIG. 5 Read From Document and Scanned Image Into Memory S32 and associated text).

As Per claim 13, the rejection of claim 1 is incorporated and further Iida teaches

“wherein the predetermined characteristics include at least one leaf routine.” (E.g. see FIG. 13 Printer  $\alpha$ , Printer  $\beta$ , Printer  $\gamma$  and associated text).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iida.

As Per claim 6, the rejection of claim 5 is incorporated and further Iida teaches components is ranked in ease or difficulty order (E.g. see col. 9:32-36, distance from the root and see col. 9:32, Filling A is easier found). Iida does not explicatively disclose wherein the Terminal I/O constructs are assigned a highest weight, the Computational constructs are assigned a lowest weight, and the External Flow Transfer constructs and Data I/O constructs are assigned weights therebetween. Official notice is taken that the Terminal I/O will take most time to complete the I/O processing. Which means that there is more gaps (time) between two Terminal

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I/O construct compare to the Computational constructs which has the least gaps. The gaps of the External Flow Transfer and Data I/O constructs are in-between the Terminal I/O and Computational constructs. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have different weights for each group construct, e.g. to assign a highest weight to Terminal I/O and a lowest weight to Computational constructs; and the External Flow Transfer constructs and Data I/O constructs are assigned weights therebetween based on the processing time gaps between two constructs. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that the higher priority queues are assigned higher weights to provide greater servicing times for handling the important data.

As Per claim 7, the rejection of claim 5 is incorporated and further Iida does not explicatively disclose altering the weights of the constructs based on the actual use of the constructs. However, since the weight is assigned based on a relative ease or difficulty of restructuring, it would have been obvious to one of ordinary skill in the art at the time the invention was made to alter the weight of the constructs based on the actual use of the constructs. The modification would have been obvious because one of ordinary skill in the art would have been motivated to make the restructuring more efficiently.

5. Claims 14-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iida in view of Fontana et al., US Patent No. 6,167,564 (art of record, hereinafter Fontana).



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As Per claim 14, Iida teaches

“a wide area computer network site;” (E.g. see FIG. Printer frames (Printer  $\alpha$ , Printer  $\beta$ , Printer  $\gamma$ ) and associated text) and

“an ordered list (E.g. see FIG. 7 creating a processing list S41 and associated text) of at least some of the software components, the list indicating the relative ease (E.g. see col. 9:32, Filling A is easier found) of restructuring the components for use on the wide area computer network site.”.

Iida does not explicatively disclose a legacy collection of software components.

However Fontana, in analogous art, teaches “a legacy collection of software components” (E.g. see FIG. 6 legacy component recovery tool 88, component model 84 and associated text).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fontana into the system of Iida, to contain a legacy collection of software components. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that the incorporation existing legacy items into new applications will help preserve investments made in creating the legacy systems.

As Per claims 15-16, 18-19 and 25-27, the rejection of claim 14 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 1-2, 4-5, 11-13 respectively.

As Per claim 17, the rejection of claim 15 is incorporated and Iida does not explicatively disclose the wide area computer network is the World Wide Web. However Fontana, in

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analogous art, teaches “wherein the wide area computer network is the World Wide Web” (E.g. see FIG. 7 web server 113 and associated text). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fontana into the system of Iida, to contain World Wide Web network. The modification would have been obvious because one of ordinary skill in the art would have been motivated so that the user can easily use service provided by the server over the internet.

As Per claims 20-21, the rejection of claim 19 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 6-7 respectively.

As Per claims 22-24, the rejection of claim 20 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 8-9 respectively.

As Per Claim 28, is the computer program device claim corresponding to the system claim 14 and is rejected under the same reason set forth in connection of the rejection of claim 14.

As Per claims 29-31 and 37-39, the rejection of claim 28 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 16, 18, 5, 25-27 respectively.

As Per claims 32-33, the rejection of claim 31 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 20-21 respectively.

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As Per claims 34-36, the rejection of claim 31 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 22-24 respectively.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang J Tang whose telephone number is 703-305-4866.

The examiner can normally be reached on M-F 8:30 to 5:00.

***If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on 703-305-4552.***

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306.

*Kuo-Liang J. Tang*

Software Engineer Patent Examiner



**ANTONY NGUYEN-BA  
PRIMARY EXAMINER**